**FREEZSTOP EXTRA**

**Self-Regulating Heating Cable**

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature.
- Can be cut-to-length.
- Inherently temperature safe.
- Suitable for use in safe, hazardous and corrosive areas.
- Available up to 277VAC.
- Full range of controls and accessories available.

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**DESCRIPTION**

**FREEZSTOP EXTRA** is an industrial grade, self-regulating heating cable that can be used for freeze protection or temperature maintenance to 100°C.

It can be cut-to-length on site and exact piping lengths can be matched without any complicated design considerations.

**FREEZSTOP EXTRA** is approved for use in non-hazardous, hazardous and corrosive environments to world wide standards.

Its self-regulating characteristics improve safety and reliability. **FREEZSTOP EXTRA** will not overheat or burnout, even when overlapped upon itself. Its power output is self-regulated in response to the pipe temperature.

The installation of **FREEZSTOP EXTRA** is quick and simple and requires no special skills or tools. Termination, splicing and power connection components are all provided in convenient kits.

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**INHERENTLY TEMPERATURE-SAFE**

“The inherent ability to self-regulate at a temperature level below the maximum product rating and withstand temperature of the insulating materials, without the need for temperature control.”

Other manufacturers self-regulating products are typically limited to a maximum energised temperature, typically 65°C at which point, their retained power output prevent the cable from self-regulating at its own limiting temperatures. All such products require temperature control to ensure their own temperature safety.

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**FREEZSTOP EXTRA** is supplied with a black fluoropolymer outer-jacket.
The information given herein, including drawings, illustrations and schematics (which are intended for illustration purposes only), is believed to be reliable. However, Heat Trace Ltd makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. Users of Heat Trace Ltd products should make their own evaluation to determine the suitability of each such product for specific applications. In no way will Heat Trace Ltd be liable for any damages arising out of the misuse, resale or use of the product.

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**SPECIFICATION**

**MAXIMUM CONTINUOUS EXPOSURE**

**TEMPERATURE (Power ON):** 100ºC (212ºF)

**MAXIMUM PERMISSIBLE EXPOSURE**

**TEMPERATURE (Power OFF):** 100ºC (212ºF)

**MINIMUM OPERATING TEMPERATURE:** -65ºC* (-85ºF)

**MINIMUM INSTALLATION TEMPERATURE:** -40ºC (-40ºF)

**POWER SUPPLY:** 12 - 277V AC

**TEMPERATURE CLASSIFICATION:**
- up to 45W/m @ nom voltage - T4 (135ºC)
- >45W/m @ nom 230V powered to 277V - T3 (200ºC)

**MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING:** 18.2 Ohm/km

**INGRESS PROTECTION:** IP67

**WEIGHTS & DIMENSIONS:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions (mm) +/-0.5</th>
<th>Weight kg/100m</th>
<th>Min Bend radius</th>
<th>Gland Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSE..C</td>
<td>11.5 x 4.75</td>
<td>9.5</td>
<td>30mm</td>
<td>M20</td>
</tr>
<tr>
<td>FSE..CT</td>
<td>12.7 x 5.95</td>
<td>12.4</td>
<td>35mm</td>
<td>M20</td>
</tr>
<tr>
<td>FSE..CF</td>
<td>12.4 x 5.65</td>
<td>13.2</td>
<td>35mm</td>
<td>M20</td>
</tr>
<tr>
<td>FSEw..C</td>
<td>14.2 x 5.3</td>
<td>12.9</td>
<td>30mm</td>
<td>M20</td>
</tr>
<tr>
<td>FSEw..CT</td>
<td>15.4 x 6.5</td>
<td>17.0</td>
<td>40mm</td>
<td>M25</td>
</tr>
<tr>
<td>FSEw..CF</td>
<td>15.1 x 6.2</td>
<td>16.6</td>
<td>40mm</td>
<td>M25</td>
</tr>
</tbody>
</table>

**APPROVAL DETAILS:**

- **ATEX**
  - FSE: CML 19ATEX3379
  - FSEw: CML 19ATEX3380

- **IECEx**
  - FSE: CML 19.0122
  - FSEw: CML 19.0123

- **DNV-GL**
  - TAE00002KA

- **EAC**
  - TC RU C-GB.MIO62.B.06041

- **Japanese**
  - FSE - CML 17JPN3004X 1 to 2

- **CNEx**
  - FSE + FSEw - CNEx19.1552U

**ORDERING INFORMATION:**

Example:
- **Output 45W/m at 10ºC**
- **FREEZSTOP EXTRA WIDE**
- Supply Voltage 220 - 277V AC
- Metal Braid
- Thermostatic Outerjacket

**ATEX & IECEx MARKINGS:**

- **II 2GD**
  - Ex 60079-30-1 IIC T4 Gb
  - EN 60079-0:2018
  - EN 60079-30-1:2017

- **II 2GD**
  - Ex 60079-30-1 IIC T135ºC Db
  - Ex 60079-30-1 IIC T3 Gb
  - Ex 60079-30-1 IIC T200ºC Db
  - EN 60079-0:2018
  - EN 60079-30-1:2017

**THERMAL RATINGS:**

Nominal output at 115V or 230V when FSE is installed on thermally insulated carbon steel pipes.

**FURTHER INFORMATION:**

Please consult the appropriate termination instructions and the Heat Trace Design, Installation & Maintenance Manual (HTDIMM 010) for further details.